

NCP160

LDO Regulator, 250 mA, Ultra-High PSRR, Ultra-Low Noise



Product Overview

For complete documentation, see the data sheet.

The NCP160 is a linear regulator capable of supplying 250 mA output current. Designed to meet the requirements of RF and analog circuits, the NCP160 device provides low noise, high PSRR, low quiescent current, and very good load/line transients. The device is designed to work with a 1 μ F input and a 1 μ F output ceramic capacitor. It is available in two thickness ultra-small 0.35P, 0.64 mm x 0.64 mm Chip Scale Package (CSP) and XDFN-4 0.65P, 1 mm x 1 mm packages.

Similar Products:

	NCP160	NCP161	NCP163	NCP167
Output Current (A)	0.25	0.45	0.25	0.70
PSRR $f=1$ kHz (dB)	98	98	92	85
Dropout Voltage (V)	0.080	0.150	0.080	0.210

Features

- Ultra High PSRR 98dB at 1kHz, 48dB at 100kHz
- Ultra Low Output Noise 10 μ VRMS
- Ultra Low Quiescent current 18 μ A
- Operating Input Voltage Range 1.9V to 5.5V
- Very Low Dropout 80mV at 250mA
- Available in CSP4 0.35P and XDFN4 0.65P packages

Applications

- A/D and D/A Converters Power supply
- Audio codec
- Battery Powered Equipment
- Camera module
- Precision Analog Circuits















































Benefits




































- Excellent for power sensitive device like Wi-Fi module
- Very well suited for noise sensitive application
- Improved efficiency during light load conditions
- Suitable for battery powered device
- Low power dissipation at full load
- Great for space constrains application





End Products

- Cameras and camcoders
- Smartphones
- Tablets
- Wireless Routers

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Output	Polarity	V _O (V)	I _O Typ (A)	V _I Min (V)	V _I Max (V)	V _{DO} Typ (V)	I _g Typ (mA)	PSRR (dB)	Noise (μV _r ms)	Enable	PowGood	Application	Package Type
NCP160AFCS180T2G	0.0795	 	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS270T2G	0.0795	 	Active	Single	Positive	2.7	0.25	1.9	5.5	0.1	0.018	90	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS280T2G	0.0795	 	Active	Single	Positive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS285T2G	0.0795	 	Active	Single	Positive	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS2925T2G	0.0697	 	Active	Single	Positive	2.925	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS300T2G	0.0795	 	Active	Single	Positive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS330T2G	0.0795	 	Active	Single	Positive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS350T2G	0.0795	 	Active	Single	Positive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS500T2G	0.0795	 	Active	Single	Positive	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS514T2G	0.0795	 	Active	Single	Positive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCS280T2G	0.0697	 	Active	Single	Positive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT180T2G	0.0828	 	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT280T2G	0.0828	 	Active	Single	Positive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT285T2G	0.0737	 	Active	Single	Positive	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT300T2G	0.0828	 	Active	Single	Positive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT330T2G	0.0828	 	Active	Single	Positive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT450T2G	0.0828	 	Active	Single	Positive	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT500T2G	0.0828	 	Active	Single	Positive	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCT514T2G	0.0828	 	Active	Single	Positive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCTC180T2G		 	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AFCTC330T2G	0.0828	 	Active	Single	Positive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	Consumer	WL CSP-4
NCP160AMX180TBG	0.0815	 	Active	Single	Positive	1.8	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX1825TBG	0.0815	 	Active	Single	Positive	1.825	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	Consumer	XDF N-4

NCP160AMX280 TBG	0.0848	 	Active	Sing le	Posi tive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX290 TBG	0.0815	 	Active	Sing le	Posi tive	2.9	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX300 TBG	0.0815	 	Active	Sing le	Posi tive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX320 TBG	0.0815	 	Active	Sing le	Posi tive	3.2	0.25	1.9	5.5	0.085	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX330 TBG	0.0815	 	Active	Sing le	Posi tive	3.3	0.25	1.9	5.5	0.08	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX350 TBG	0.0815	 	Active	Sing le	Posi tive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX500 TBG	0.0815	 	Active	Sing le	Posi tive	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160AMX514 TBG	0.0815	 	Active	Sing le	Posi tive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160BFCS250T2G	0.0795	 	Active	Sing le	Posi tive	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCS350T2G	0.0795	 	Active	Sing le	Posi tive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCS450T2G	0.0795	 	Active	Sing le	Posi tive	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCS500T2G	0.0795	 	Active	Sing le	Posi tive	5	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCS514T2G	0.0795	 	Active	Sing le	Posi tive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT210T2G	0.0828	 	Active	Sing le	Posi tive	2.1	0.25	1.9	5.5	0.15	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT250T2G	0.0828	 	Active	Sing le	Posi tive	2.5	0.25	1.9	5.5	0.11	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT280T2G	0.0828	 	Active	Sing le	Posi tive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT300T2G	0.0828	 	Active	Sing le	Posi tive	3	0.25	1.9	5.5	0.09	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT350T2G	0.0828	 	Active	Sing le	Posi tive	3.5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT450T2G	0.0828	 	Active	Sing le	Posi tive	4.5	0.25	1.9	5.5	0.065	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT500T2G	0.0828	 	Active	Sing le	Posi tive	5	0.25	1.9	5.5	0.075	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BFCT514T2G	0.0828	 	Active	Sing le	Posi tive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	WL CSP -4
NCP160BMX1825TBG	0.0815	 	Active	Sing le	Posi tive	1.825	0.25	1.9	5.5	0.18	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160BMX275 TBG	0.0815	 	Active	Sing le	Posi tive	2.75	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160BMX280 TBG	0.0815	 	Active	Sing le	Posi tive	2.8	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	XDF N-4

NCP160BMX285 TBG	0.0815	 	Active	Single	Positive	2.85	0.25	1.9	5.5	0.095	0.018	98	10	Yes	No	Consumer	XDF N-4
NCP160BMX514 TBG	0.0815	 	Active	Single	Positive	5.14	0.25	1.9	5.5	0.06	0.018	98	10	Yes	No	Consumer	XDF N-4